

CLAIMS

1. A valve assembly comprising:
 - a valve body defining an inlet, a controlled outlet and a passageway therebetween;
 - a valve stop and a valve seat supported within said valve body in axial alignment with said controlled outlet; and
 - a plunger reciprocable between the valve stop and the valve seat to open and close said controlled outlet, said plunger further including a central bore having an insert molded therein to define a stop-cushion at an end proximal the valve stop and a valve tip at an end proximal the valve seat.
2. The valve assembly of claim 1, wherein the stop cushion is dome-shaped.
3. The (evaporative control) valve assembly of claim 1, wherein the valve stop includes a plunger-impact surface formed of a non-conductive material.
4. The evaporative-control valve assembly of claim 1, wherein the valve stop includes a non-conductive insert received in an end proximal the plunger.
5. The evaporative-control valve assembly of claim 1, wherein said plunger includes a pocket formed in an end proximal the valve stop and a spring received with the pocket that urges the plunger toward the valve seat to close the passageway.
6. The evaporative-control valve assembly of claim 4, wherein the spring has an outer diameter at least 50% greater than the diameter of

the pocket.

7. The (evaporative control) valve assembly of claim 1, wherein a solenoid actuator is operable on said plunger to open and close said passageway.

8. A method of manufacturing a plunger reciprocably moveable within a valve assembly between a valve stop and a valve seat, the method comprising:

providing a conductive elongate plunger body having a central bore formed therein ;

molding an insert within the plunger body to define a stop-cushion at an end proximal the valve stop and a valve tip proximal an end proximal the valve seat.

9. A plunger ^amanufactured according to the method of claim 8, comprising:

a conductive elongate plunger body having a central bore formed therein; and

an insert molded within the plunger body to define a stop-cushion at an end proximal the valve stop and a valve tip proximal an end proximal the valve seat.